

BEST AVAILABLE COPY

**Amendment and Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure**

Page 10 of 13

Serial No.: 10/620,183

Confirmation No.: 8654

Filed: July 15, 2003

For: CATALYTIC PARTIAL OXIDATION OF HYDROCARBONS

**Remarks**

The Office Action mailed January 24, 2007, has been received and reviewed. Claim 77 having been amended and claims 57-76 having been canceled, without prejudice, the pending claims are claims 1-56 and 77-78.

Claims 57-75 have been canceled merely to expedite allowance of the present application, and the Applicants specifically reserve the right to submit these claims in a continuing application.

Claim 76 has been amended to recite that the process includes preheating the wall of the reactor to a temperature of from about 250°C to about 400°C. Support for this amendment may be found in the specification at, for example, page 20, line 32 to page 21, line 1. Applicants assert that this amendment would place the claim in condition for allowance. Entry and consideration of the amendment are, therefore, respectfully requested.

Claim 77 has been amended merely to add punctuation at the end of the claim which was inadvertently omitted when presenting the claim for consideration in the previously submitted response, filed with the U.S.P.T.O. on 30 October 2006. Entry of this amendment is respectfully requested.

Reconsideration and withdrawal of the rejections, in view of the foregoing amendments and the following comments, are respectfully requested.

**Telephone Interview**

Applicants thank the Examiner for the courtesy extended to Applicants' Representative Kathleen L. Franklin during a telephone interview held 5 January 2007, and to Applicants' Representative Loren D. Albin during a telephone interview held 8 January 2007. On 5 January 2007 authorization was given to cancel withdrawn claims 1-56. However, on 8 January 2007 authorization was not given to cancel claims 76-78.

**Claims 1-56**

Applicants thank the Examiner for indicating that claims 1-56 have been allowed.

**Amendment and Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure**

Page 11 of 13

Serial No.: 10/620,183

Confirmation No.: 8654

Filed: July 15, 2003

For: CATALYTIC PARTIAL OXIDATION OF HYDROCARBONS

RETIRED AVAILABLE COPY

**The 35 U.S.C. §102 Rejection**

The Examiner rejected claims 76-78 under 35 U.S.C. §102(b) as being anticipated by Griffiths et al. (U.S. Patent No. 5,663,473). Applicants respectfully traverse this rejection.

For a claim to be anticipated under 35 U.S.C. § 102(b), each and every element of the claim must be found in a single prior art reference (M.P.E.P. §2131). Applicants respectfully assert that Griffiths et al. fail to teach each and every element of the rejected claims.

**Claim 76**

Claim 76, as amended herein, recites a process for the production of a compound comprising carbon, wherein the process includes, *inter alia*, feeding a liquid fuel source comprising at least one organic compound to a reactor having at least one wall, wherein the wall of the reactor has been preheated to a temperature of from about 250°C to about 400°C. As Griffiths et al. fail to teach or suggest preheating of the reactor wall, Applicants assert that this claim is novel in view of Griffiths et al.

**Claims 77 and 78**

Both of Applicants' claims 77 and 78 recite "feeding the liquid fuel source to a wall of a reactor." Applicants respectfully point out that Griffiths et al., conversely, teach feeding the fuel source directly to the catalyst.

In the sole example of conversion of fuel to olefins (Example 2, beginning at col. 6, line 6) of Griffiths et al., it is specifically stated that, "[t]he top face of the catalyst was positioned 20 mm from the tip of a twin-fluid gas atomizing nozzle and the region between the nozzle and the catalyst face was coned to match the angle of the spray" (Griffiths et al., col. 6, lines 12-15). Furthermore, there is no discussion in either the BACKGROUND OF THE INVENTION or the DESCRIPTION OF THE INVENTION of any specific direction in which the fuel is to be delivered within a reactor. Thus, Applicants submit that the discussion of the Griffiths et al. invention neither teaches nor suggests that the fuel source is delivered in any direction other than exclusively directly toward the catalyst, as disclosed in the Examples. Further, Applicants assert

## Amendment and Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

Page 12 of 13

Serial No.: 10/620,183

Confirmation No.: 8654

Filed: July 15, 2003

For: CATALYTIC PARTIAL OXIDATION OF HYDROCARBONS

that the Examples of Griffiths et al. specifically teach away from feeding the fuel source to the wall of the reactor, as recited in Applicants' claims.

In addition, with respect to claim 78, Applicants note the Examiner's admission that "Griffiths does not explicitly disclose production of alpha-olefin." The Examiner asserted, however, that "since the process of the reference is essentially the same as the claimed process, alpha-olefin would inherently be one of the products produced by the process of Griffiths." (Final Office Action, mailed 24 January, 2007, page 3, lines 11-13).

Applicants disagree with the Examiner's assertion that Griffiths et al. inherently disclose the production of alpha-olefin. Furthermore, Applicants strongly disagree with the Examiner's assertion that "the process of the reference is essentially the same as the claimed process" (Final Office Action, mailed 24 January, 2007, page 3, lines 11-12). However, for at least the reason that Griffiths et al. fail to teach feeding a fuel source to a wall of a reactor, Applicants assert that, despite the Examiner's assertion of inherency, claim 78 is not anticipated by Griffiths et al. Nonetheless, Applicants specifically reserve the right to present arguments concerning inherency in any future rejections of this of this claim.

For at least the above reasons, Applicants assert that claims 76-78 are novel over Griffiths et al. Reconsideration and withdrawal of the rejection are, therefore, respectfully requested.

BEST AVAILABLE COPY

## Amendment and Response Under 37 C.F.R. §1.116 - Expedited Examining Procedure

Page 13 of 13

Serial No.: 10/620,183

Confirmation No.: 8654

Filed: July 15, 2003

For: CATALYTIC PARTIAL OXIDATION OF HYDROCARBONS

Summary

It is respectfully submitted that the pending claims 1-56 and 76-78 are in condition for allowance and notification to that effect is respectfully requested.

The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted

By

Mueting, Raasch &amp; Gebhardt, P.A.

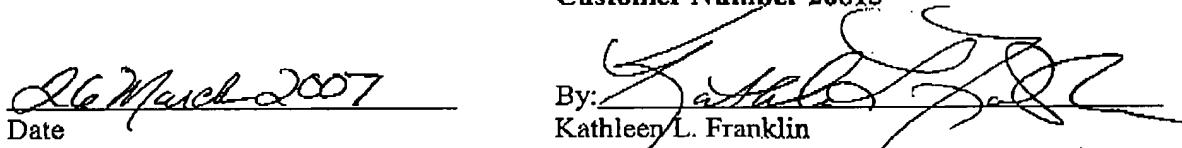
P.O. Box 581415

Minneapolis, MN 55458-1415

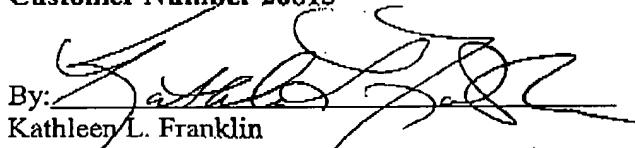
Phone: (612) 305-1220

Facsimile: (612) 305-1228

Customer Number 26813



Date

By: 

Kathleen L. Franklin

Reg. No. 47,574

Direct Dial (612) 305-1873

CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26<sup>th</sup> day of March, 2007, at 10:40 A.M. (Central Time).

By: Sandy Truehart  
 Name: Sandy Truehart